

# The Discovery of X-rays

By Derek Linesis



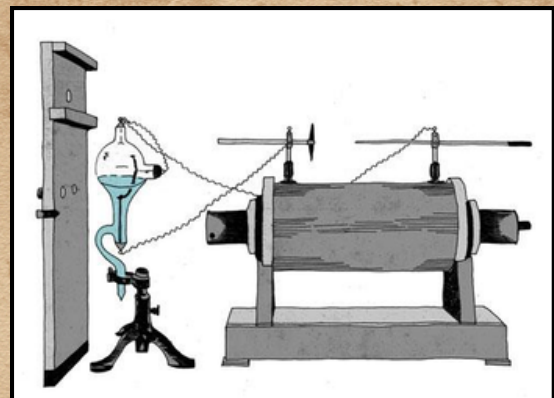
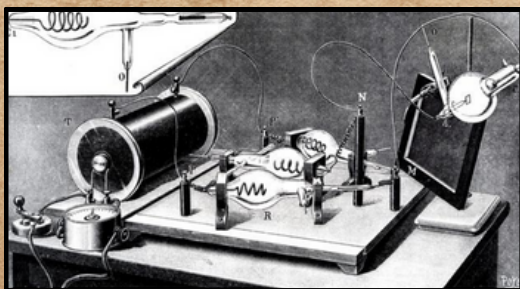
Wilhelm Röntgen  
German physicist

November 8, 1895

Dear Diary,

Today, I found something interesting in my lab. I was experimenting with cathode rays with a fluorescent screen painted with barium platinocyanide and a Crookes tube, which I wrapped in black cardboard so the visible light from the tube wouldn't interfere. Then I noticed a faint green glow from the screen, about one meter away. The invisible rays coming from the tube to make the screen glow were passing through the cardboard. I also found out that it could pass through books and papers on my desk.

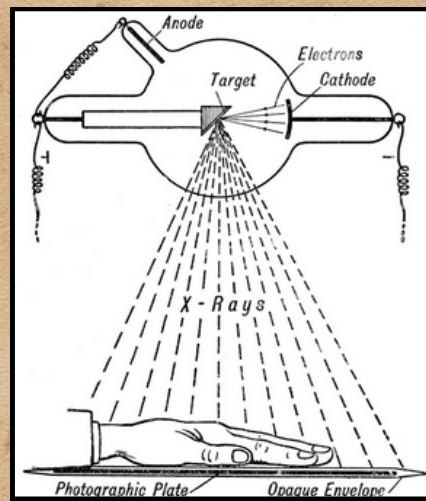
Upon this investigation, I found that the fluorescence was caused by unknown rays originating from the spot where cathode rays hit the glass wall of the vacuum tube. I called it X-Rays.



December 22, 1895,

Dear Diary,

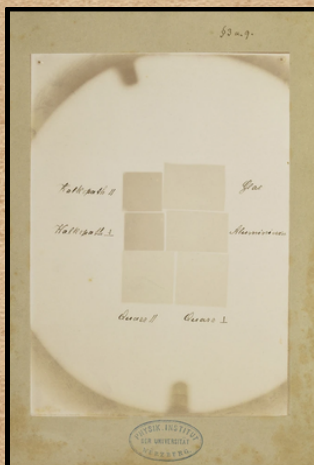
I have discovered the medical use of X-rays. I was continuing the discovery of the X-rays. I asked my wife to put her hand on a lightproof cassette containing a photographic plate. Then it made an exposure using the new rays that I discovered. The result was fascinating; the bones of my wife's fingers were clearly seen together with the wedding ring she was wearing. That radioactive photograph is the first x-ray photograph of a part of the human body.



December 28, 1895

Dear Diary,

After I discovered the medical use of X-rays, I published my work and titled it in a short manuscript called "A New Kind of Rays". Later on, it was also published in the 1895 volume of the Annals of Würzburg Physical Medical Society (Proceedings of the Physical-Medical Society of Würzburg). I demonstrated how I created this new type of ray and called them X-rays to distinguish them from other types of rays.



I also demonstrated how almost all materials were transparent to X-rays, although to different degrees. I listed different substances that fluoresce when exposed to X-rays. I showed that X-rays traveled in straight lines, were not reflected or refracted, and that the intensity of X-rays varied inversely with the distance from their source. Then I sent copies of my original article and examples of x-ray pictures to a number of well-known scientific colleagues in several countries.

January 24, 1896

Dear Diary,

Yesterday, I gave my first and only lecture on the subject of the discovery of X-rays at a meeting of the Würzburg Physical Medical Society. Before an enthusiastic audience, I presented the results of my experiments and gave a demonstration of the new rays by producing a radiograph “live” of the hand of Germany’s famous anatomist, Professor Albert von K  lliker.



At the end of my lecture, Professor Albert von K  lliker suggested that the new rays be named "R  ntgen's rays". That was unanimously approved by the distinguished audience. Following my discovery of X-rays, R  ntgen received numerous decorations and honours from all over the world.